

Modern Homes Nowadays Are Electrically Equipped; Is Yours?

The Star Vibrator
A Perfect
Electric Vibrator
for \$5
The H. I. Scharr Elec. Co.
711 13th St. N. W.

TEST COLORS BY CURRENT.
A new electrical instrument the effect of sunlight is standardized and reproduced for testing the permanency of colors in textiles, wall papers, coloring materials, and so on. The new device consists of an arc using special electrodes and enclosed in two telescopic sheet-steel cylinders. The whole being mounted on a stand. The instrument, which may be used on either direct or alternating current. Provision is made for testing forty samples at once. Part of each sample is covered and part is exposed to the light, so that comparisons can be made between the tested and untested portions of the samples.

AUCTION SALE

Monday, April 12th, at 10:30 A. M.
Retiring From Electrical Fixture Business.

A beautiful display of lighting fixtures will be put on sale Monday morning at 10:30 at Public Auction. A chance that very rarely comes. It will be to your advantage to come in and bid on some of these fixtures. Each fixture will be sold separate.

ADAM A. WESCHLER, Auctioneer
GEORGE W. PAREZO & CO.
808 9th St. N. W.

NOTICE: We are not going out of business. We will continue to conduct an Electrical Supply house along with Wireless Apparatus.

Oh! my back!

How It Aches!

Of course, it aches! Why shouldn't it when you strain over the old-fashioned and decidedly out of date ironing board?

This way was all right when there was no other—it had to be accepted as the only way. But now, in the days of electrical wonders, there is no excuse whatever for breaking backs and wearing out your health.



Do Your Ironing Electrically With the Horton Ironing Machine And Save the Aches



How much better is this way! And it is an economy plan, too. You know that if you put off buying a time and money saving thing, you are paying for it anyway without getting the benefit of it.

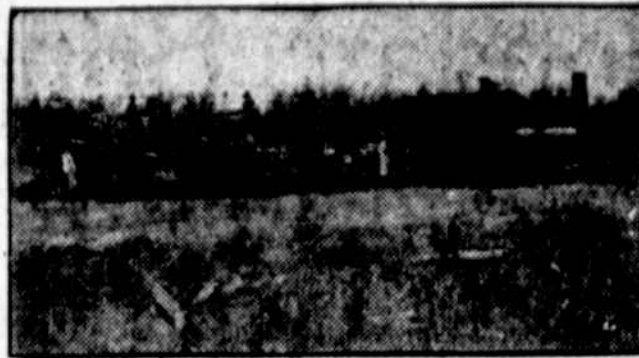
You can buy this most efficient HORTON IRONER on easy terms—and you will hardly notice the small payments as they go out.

Come to our store and let us show you how you can do a whole day's ironing in less than two hours, or call us up and arrange for a demonstration without obligation, in your home.

SALMON-1900 SALES CO.

1206 G Street N. W. Phone Main 7127
1000 CATARACT WASHERS
ROYAL AND OHIO VACUUM CLEANERS
We Specialize in Home Laundry Equipment

Electric Locomotive Replaces Old Steam Engine



The De Witt Clinton, early type locomotive, which operated between Albany and Schenectady, N. Y., in 1831. The entire length of this train was less than the present type of locomotive.



The new gearless electric locomotive, the most powerful type of electric passenger locomotives yet developed, which are being used in passenger service on the C. & M. & St. P. railroad between Chicago and the West coast.

Longest Electrified Railroad Opened By American Engineers

What is generally acknowledged to be one of the greatest electrical engineering feats in American railroad annals was brought to a conclusion after five years of constant planning and at an expenditure of \$20,000,000, with the opening on March 6 of the coast division of the Chicago, Milwaukee, and St. Paul railway between Othello, Wash., and Seattle.

The United States thus becomes the possessor of the longest electrified railroad in the world—approximately 700 miles of main line track, or the distance between New York and Cleveland, Ohio, and to this must be added about 200 miles of extra track, bringing the total mileage up to about 900 miles, or nearly the distance from New York to Chicago. The complete electrification now extends from Harlowtown, Mont., to the Pacific Coast, crossing on its way two mountain ranges, the Rockies and Cascades, with the exception of about 200 miles still to be electrified between Avery, Idaho, and Othello.

Has Sixty-one Locomotives.
This vast electric transportation system in its completed form operates sixty-one electric locomotives, including passenger, freight, and switching types. These locomotives have released for service elsewhere no less than 162 steam engines at an annual savings of 200,000 tons of coal and 10,000,000 gallons of oil, for the railroad obtains its motive power wholly from the natural water resources of the surrounding country.

Electric rolling stock and equipment for the new division consists primarily of five 3,000-volt direct current locomotives, one of which recently was hauled by the railroad world by winning a tug of war from two steam engines at the works of the General Electric Company, in Erie, Pa. These locomotives, the most powerful type of electric passenger locomotives yet developed, are being used in passenger service to haul the "Olympian" and "Columbian," the crack C. & M. & St. P. flyers, between Chicago and the West coast.

Since the first locomotive made by the General Electric Company, the wheels at a speed of not more than five miles an hour, perhaps no single event in history has held more interest than the accomplishment of the electric locomotive, made at the Erie plant of the General Electric Company.

Watt Steam Engine.
When James Watt invented the steam engine in 1763, its adoption made England the industrial giant of the world for many generations. But the piston of Watt's engine moved only forward and backward, up and down. In 1804, Richard Trevithick put a

First Railway in 1830.

The first railway in America, built with a purpose from the beginning, was constructed in 1830. It was known as the South Carolina railroad. The Baltimore and Ohio, in 1828, completed a road fifteen miles long from Baltimore to Ellicott, Md.

It was about this time a company was organized for the purpose of building a railroad between Albany and Schenectady, N. Y. It was named the Mohawk and Hudson railroad. The first train was operated on September 9, 1831, and the engine was named the DeWitt Clinton. It weighed nearly 7,000 pounds and was placed upon two pairs of drivers. Behind it were three stage coach bodies, which constituted the cars of the original train. The entire length of this train was less than the present type of Pacific locomotives.

Although this railroad was crude, it was evident to men of capital and of inventive capacity that it pointed the way to a great development of railroad construction. Therefore, another company was organized to build and operate a road between Schenectady and Utica. This road opened the way to travel by steam from Albany to Utica, with a change at Schenectady.

But with all these engines they were compelled to take the forward and backward motion of the engine and convert it, transform it, into rotating motion. For years this handicap existed. Something better was needed.

In the same year that Thomas A.

Edison perfected the electric lamp in the United States, Siemens and Halske exhibited at the Berlin industrial exposition the first electric railway in the world—1879. As an illustration of the remarkable versatility of Mr. Edison, he constructed and put into operation his first electric locomotive the following year.

In 1881, electric cars were used in Germany, this being the first regular commercial electric railway in the world. This same year, Siemens operated cars at the Paris exposition with electric current supplied from an overhead slotted tube, in which a contact shoe slid and power was transmitted by the motor to the axle through a chain.

Despite this progress, in 1883 Professor Buillon in his much-quoted address at Indianapolis, declared electric railways "practically toys" and "too expensive to be practical." But the year following in an adjoining State, E. M. Bentley and Walter H. Knight operated a two-mile electric railway in Cleveland, Ohio. These cars were the first operated by motors placed under the car floor. They obtained their electricity from an underground circuit placed between the tracks, much as New York city's surface cars are operated today. In the same year the overhead trolley was first introduced. This was soon a two-mile line from Baltimore to Hampden.

Electric Traction Spreads.
American enterprise took up electric traction all over the country, and as early as 1887 these cars were running in the streets of Denver. In February, 1888, a street railway eleven miles in length was installed at Richmond, Va., by the Sprague Railway and Motor Company. A central station furnished the power from a three-horsepower steam engine, sup-

plying sufficient current to operate thirty cars.

From that time, Frank J. Sprague and his associates proceeded to convince street railway managers that electric power could be economically substituted for animal, steam and cable traction.

Out of this pioneer work has come in less than a generation the luxurious and standardized electric traction of today—chair cars, dining cars and sleepers—all electrically driven. Even the stepless car, electrically warmed, and doors opened and closed by the mere pushing of a button, is typical of the electric age.

there are few people who do not enjoy the savory odors of food prepared at table.

HOME MOTOR REAL JACK-OF-ALL-TRADES

The small home motor is the most willing worker you ever saw. It is never tired and never demands a vacation. After running the sewing machine, it is ready to do other tasks

with the aid of attachments, one of which is a cream whipper that not only whips cream, but also beats eggs quicker and better than by any other method. This attachment includes a funnel arrangement that permits oil to be added a drop at a time and thus the cream whipper becomes an ideal salad dressing mixer for the making of mayonnaise sauce.

Then there is a polisher, a grinder and a fan attachment that instantly changes the home motor into a strong fan, sending cooling breezes through the room on warm days.

CURRENT OUTLETS ADD TO COMFORT

Getting maximum service out of electricity in the home and the most comfort from electrical appliances will depend entirely upon having sufficient service outlets, so the useful appliances may be connected and quickly connected when needed.

It is a nuisance to have to climb onto a chair and unscrew a lamp from a fixture every time one wishes to make connection for current. There should be facilities provided for the easy operation of all appliances independent of the lighting system.

One may be the proud possessor of a brand-new electric cleaner that has high suction and a motive-driven brush; or a new electric cooker, or a handsome percolator that promises perfect coffee, but—if there is no convenient place to connect the appliances, they lose their effectiveness and the housewife loses interest in them.

Convenient service outlets, provide handy places to "plug in" appliances without disturbing the lighting system. They do away with dangling cords that are so unsightly and always in the way. A liberal supply of wall, baseboard, and floor outlets in the home enables one to get the most satisfactory service from labor-saving appliances.

A small wheeled table equipped with a plug cluster screwed on the under side of the upper tray is a great convenience in the preparation of a meal at the main table. The small table holds the appliances that may be needed at breakfast, the percolator, toaster, or the grill.

Thus the pretty art table cookery may be practiced by the dainty hostess, who saves many steps from kitchen to dining room, and the constant attendance of a maid. The food can be served hot and appetizing, and

First Aid to Tired Housekeepers

When you feel like this woman looks, drop your broom, call Columbia 9610 on the phone and say,

"Send an Apex Electric Cleaner out to my house."

We'll do just that. And after you have been fully satisfied that the cleaner will do all you hoped, we will make such easy terms that you will wonder how you could afford to be without it.

Remember—Phone Columbia 9610 or a postal to

Arthur Lowe
Electrical Contractor and Dealer
3438 14th St. N. W.

"I've made that one of the most attractive homes in town"

—because it has just been wired for electric service. Electric light brings good cheer. It makes happier, more comfortable homes.

NOW—is the most opportune time to have your house wired. Let us show you how little it will cost under our easy payment plan. Shall we send a representative today?

WALKER & WINKLER
ELECTRICAL CONTRACTORS
1102 14th St. Phone Franklin 6855

THE A-B-C

Super-Electric Washing Machine

EQUAL TO THE BEST

WORTHY OF YOUR INVESTIGATION BEFORE YOU BUY

FREE DEMONSTRATION ON REQUEST

Webster Electric Co.

DISTRIBUTORS.
719 NINTH STREET
Next To Rialto Theater
Phone Main 5150.

Price-cutting often results in poor workmanship

A good workman is worthy of his hire. An electrician is generally paid what he earns. Some earn \$2.00 a day, some \$8.00. The quality of their work shows plainly why there is a difference in their pay.

Then, too, a \$8.00 man may do \$2.00 work if hurried too much.

If an inexperienced contractor figures his labor cost too low—as is often the case—he has one or two alternatives: He may employ cheap workmen or he may attempt to rush good workmen. In either case the work must suffer. You are the loser.

Again we say, employ an established and reliable electrical contractor, one who understands from long experience how to estimate costs of labor and material. He will save you money in the end.

Arcade Electric	Arcade Market, (Ernest Angerman, Mgr.)	Col. 5012
Capital Electric Co.	1525 14th St.,	Franklin 4582
F. L. Clarke	1242 Wisconsin Ave.,	West 2419
Davis Electric Co.	1009 H St.,	Franklin 5040
Howard P. Foley Co.	1413 G St.,	Main 1135
E. C. Gramm	1408 Eye St.,	Franklin 5016
Home Electric Shop	2203 14th St., (J. D. Campbell, Mgr.)	North 4226
Arthur Lowe	3438 14th St. N. W.	Col. 9610
Modern Electric Shop	1411 U St.,	North 2153
Geo. G. Rabbitt	805 9th St., (Successor to John R. Galloway)	Main 280
H. I. Scharr Elec. Co.	711 13th St.,	Main 1286
J. E. Tavor & Co.	1324 Eye St.,	Main 7103

"Buy Your Electrical Goods at an Electrical Store"

The HOOVER

ELECTRIC SUCTION SWEEPER



THE HOOVER crawls along; digs out the deep-down, hidden, harmful grit; snatches up every vestige of clinging litter; swallows all the surface dirt. Straightens crushed nap, revives colorings, and is guaranteed to prolong the life of all rugs and carpets, including finest orientals.

It's the largest selling electric cleaner in the world. Prices begin at.....\$52.50

EASY TERMS

SPECIAL NOTICE:

DURING REBUILDING now in progress, our AUTO SUPPLY DEPT., will be temporarily located at 1322 NEW YORK AVE.

MOTOR LUNCHEON SETS



For 2, 4, 6, and 7 persons in Upright, Suit Case, and Running Board styles.

From \$25 up

Universal Vacuum Bottles

Various styles in half-pint, pint and quart, \$2.75 up.

Also, Carafes, Food Jars and other Universal Vacuum Specialties.



\$15, Madam,

Only \$15, to have the wonderful

Thor Electric Washer

put into your home—then convenient payments for a few months and all wash-day problems are solved. The Thor will pay for itself—will save the cost of help. It will save so much on wear and tear of clothes that the payments you make for it cannot be considered an expense.

Just push a button and the Thor goes to work and washes the clothes cleaner than ever washed by hand.



So You're the "Dirtless-Workman" Come Right in

We have proven this to thousands of satisfied home owners in Washington.

Let Us Prove It to You

Estimates and Advice Free. Terms if Desired

THE ELECTRO-SERVICE SHOP

J. E. TAYLOR & COMPANY, Inc.

1324 Eye Street Phone Main 7103

Lighting Fixtures, Edison Lamps, Vacuum Cleaners and Everything Electrical.

Everything for the Motorist

NATIONAL ELECTRICAL SUPPLY COMPANY

1328 30 NEW YORK AVE. MAIN 6800

The Store for Things Electrical

You are cordially invited to call so the demonstrator may explain to you the benefits derived from the use of these electrical appliances.